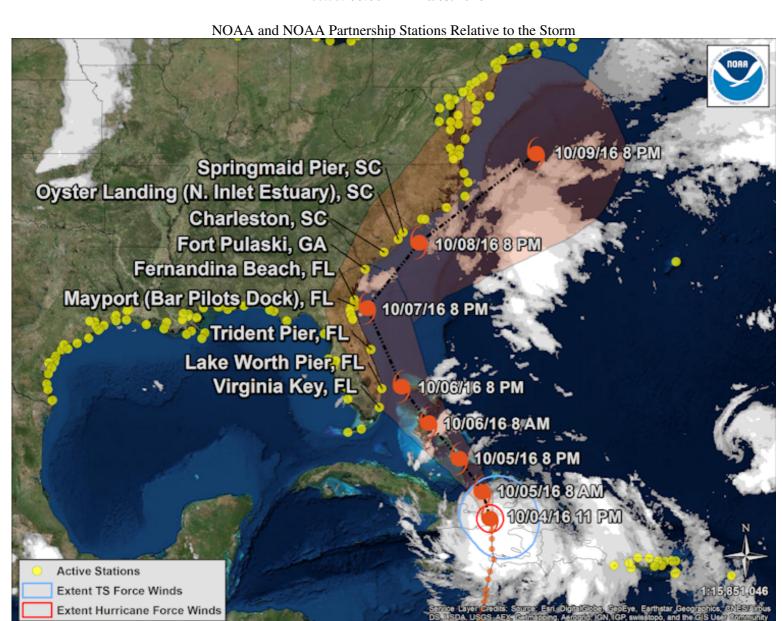




Hurricane MATTHEW QuickLook Posted: 00:00 EDT 10/05/2016



Storm Analysis

As of 10/05/2016 00:00 ED, water levels from southern Florida to South Carolina are slightly elevated and range between 0.4 and 1.2 feet above normal tide levels. Winds from Lake Worth Pier, FL to Springmaid Pier, SC range between 10 and 25 kts with slightly higher gusts. Barometric pressure is generally steady across the region.

Water Level and Meteorological plots available below are updated automatically. A line denoting <u>Mean Higher High Water</u> (MHHW) is displayed to provide an approximate indication of when flooding inundation may occur.

For additional data, please see the <u>Center for Operational Oceanographic Products & Services</u> website. For more information or archived products and reports, please see the <u>Storm QuickLook</u> Homepage.

Analyst: PFF

SELECT <u>NATIONAL HURRICANE CENTER</u> ADVISORY INFORMATION:HURRICANE MATTHEW ADVISORY NUMBER 28
NWS NATIONAL HURRICANE CENTER MIAMI FL
1100 PM EDT TUE OCT 04 2016

...THE EYE OF POWERFUL HURRICANE MATTHEW MOVING OFF OF THE NORTHEASTERN COAST OF CUBA...

...HURRICANE AND TROPICAL STORM WARNINGS ISSUED FOR FLORIDA...

SUMMARY OF 1100 PM EDT...0300 UTC...INFORMATION

LOCATION...20.4N 74.4W

ABOUT 55 MI...85 KM ENE OF GUANTANAMO CUBA
ABOUT 20 MI...30 KM NW OF THE EASTERN TIP OF CUBA
MAXIMUM SUSTAINED WINDS...130 MPH...215 KM/H
PRESENT MOVEMENT...N OR 350 DEGREES AT 8 MPH...13 KM/H
MINIMUM CENTRAL PRESSURE...950 MB...28.06 INCHES

WATCHES AND WARNINGS

CHANGES WITH THIS ADVISORY:

The Hurricane Watches from Golden Beach to Sebastian Inlet, and for Lake Okeechobee, have been changed to Hurricane Warnings. The Hurricane Watch has been extended northward to the Flagler/Volusia county line. The Tropical Storm Watch from Seven Mile Bridge to Golden Beach has been changed to a Tropical Storm Warning, and Tropical Storm Warnings have been added from Chokoloskee to Ocean Reef, and for Florida Bay.

SUMMARY OF WATCHES AND WARNINGS IN EFFECT:

A Hurricane Warning is in effect for...

- * Haiti
- * Cuban provinces of Guantanamo, Santiago de Cuba, Holguin, Granma, and Las Tunas
- * Southeastern Bahamas, including the Inaguas, Mayaguana, Acklins, Crooked Island, Long Cay, and Ragged Island
- * Central Bahamas, including Long Island, Exuma, Rum Cay, San Salvador, and Cat Island
- * Northwestern Bahamas, including the Abacos, Andros Island, Berry Islands, Bimini, Eleuthera, Grand Bahama Island, and New Providence
- * North of Golden Beach to Sebastian Inlet
- * Lake Okeechobee

A Hurricane Watch is in effect for...

* Cuban province of Camaguey

* North of Sebastian Inlet to the Flagler/Volusia county line

A Tropical Storm Warning is in effect for...

- * Dominican Republic from Barahona westward to the border with Haiti
- * Turks and Caicos Islands
- * Chokoloskee to Golden Beach
- * Florida Keys from Seven Mile Bridge eastward
- * Florida Bay

A Tropical Storm Watch is in effect for...

* Dominican Republic from Puerto Plata westward to the border with Haiti

Interests elsewhere in the Florida Peninsula and the Florida Keys should monitor the progress of Matthew.

For storm information specific to your area in the United States, including possible inland watches and warnings, please monitor products issued by your local National Weather Service forecast office. For storm information specific to your area outside the United States, please monitor products issued by your national meteorological service.

DISCUSSION AND 48-HOUR OUTLOOK

At 1100 PM EDT (0300 UTC), radar data from Guantanamo, Cuba, along with reports from an Air Force Reserve Hurricane Hunter aircraft, indicate that the eye of Hurricane Matthew was located near latitude 20.4 North, longitude 74.4 West. Matthew is moving toward the north near 8 mph (13 km/h), and this general motion is expected to continue tonight. A turn toward the north-northwest is expected on Wednesday, followed by a northwest turn Wednesday night. Matthew will be moving through the Bahamas through Thursday, and is expected to be very near the east coast of Florida by Thursday evening.

Maximum sustained winds have decreased to near 130 mph (215 km/h) with higher gusts, but Matthew remains a category 4 hurricane on the Saffir-Simpson Hurricane Wind Scale. Some fluctuations in intensity are possible during the next couple of days, but Matthew is expected to remain a powerful hurricane through at least Thursday night.

Hurricane-force winds extend outward up to 45 miles (75 km) from the center and tropical-storm-force winds extend outward up to 175 miles (280 km).

The minimum central pressure recently reported by reconnaissance aircraft was 950 mb (28.06 inches).

HAZARDS AFFECTING LAND

WIND: Hurricane conditions are still affecting portions of Haiti. Hurricane conditions are likely occurring over eastern Cuba, and will begin in the southeastern Bahamas by Wednesday morning, the central Bahamas on Wednesday, and the northwestern Bahamas Wednesday night.

Tropical storm conditions are expected to continue spreading across the remainder of Haiti, eastern Cuba and the southeastern Bahamas tonight, and should reach the central and northwestern Bahamas on Wednesday, making outside preparations difficult or dangerous. Tropical storm conditions are still occurring in portions the Dominican Republic within the warning area, and these conditions will spread northward into the Turks and Caicos Islands tonight.

Hurricane conditions are possible in the hurricane watch areas in Cuba tonight with tropical storm conditions possible later tonight.

Hurricane conditions are expected within the hurricane warning area in Florida by late Thursday, with tropical storm conditions expected by early Thursday. Tropical storm condition should reach the tropical storm warning area in Florida by early Thursday.

RAINFALL: Matthew is expected to produce total rainfall amounts in the following areas:

Southern Haiti and southwestern Dominican Republic...15 to 25 inches, isolated 40 inches Eastern Cuba and northwestern Haiti...8 to 12 inches, isolated 20 inches

Eastern Jamaica...4 to 6 inches, isolated 12 inches

The Bahamas...8 to 12 inches, isolated 15 inches

Turks and Caicos Islands...2 to 5 inches, isolated 8 inches

Northeastern Haiti and the Northern Dominican Republic...1 to 3 inches, isolated 5 inches

Western Jamaica...1 to 2 inches, isolated 3 inches

Upper Florida Keys northward to coastal east-central Florida....4 to 7 inches, isolated 10 inches

Middle to Lower Florida Keys....1 to 3 inches, isolated 5 inches

Life-threatening flash floods and mudslides are likely in southern and northwestern Haiti, the southwestern Dominican Republic, and eastern Cuba.

STORM SURGE: The combination of a dangerous storm surge and large and destructive waves could raise water levels by as much as the following amounts above normal tide levels...

Southern Coast of Cuba east of Cabo Cruz...7 to 11 feet South Coast of Haiti...7 to 10 feet Northern Coast of Cuba east of Camaguey...4 to 6 feet Gulf of Gonave in Haiti...3 to 5 feet The Bahamas...10 to 15 feet

The water could reach the following heights above ground if the peak surge occurs at the time of high tide...

North Palm Beach to the Flagler/Volusia county line...3 to 5 ft

Surge-related flooding depends on the relative timing of the surge and the tidal cycle, and can vary greatly over short distances. Large waves generated by Matthew will cause water rises to occur well in advance of and well away from the track of the center.

The combination of a dangerous storm surge and the tide will cause normally dry areas near the coast to be flooded by rising waters moving inland from the shoreline. There is a danger of life-threatening inundation during the next 36 hours along the Florida east coast from North Palm Beach to the Sebastian Inlet. There is the possibility of life-threatening inundation during the next 48 hours from Sebastian Inlet to the Flagler/Volusia county line. For a depiction of areas at risk, please see the Prototype National Weather Service Storm Surge Watch/Warning Graphic. For information specific to your area, please see products issued by your local National Weather Service forecast office.

The Prototype Storm Surge Watch/Warning Graphic is a depiction of areas that would qualify for inclusion under a storm surge watch or warning currently under development by the National Weather Service and planned for operational use in 2017. The Prototype Graphic is available at hurricanes.gov.

SURF: Swells generated by Matthew will continue to affect portions of the coasts of Hispaniola, Jamaica, eastern Cuba, and the Caribbean coastline of Central America during the next few days. Swells from Matthew are also affecting portions of the Bahamas. These swells are likely to cause life-threatening surf and rip current conditions.

Please consult products from your local weather office.

NEXT ADVISORY

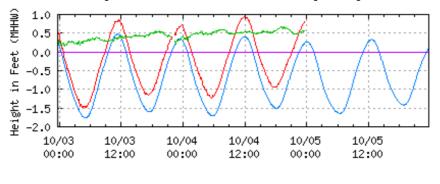
Next intermediate advisory at 200 AM EDT. Next complete advisory at 500 AM EDT.

Forecaster Stewart

For the purpose of timely release, data contained within this QuickLook have undergone a "limited" NOS Quality Assurance/Control; however, the data have not yet undergone final verification. All data subject to NOS verification.

Jump to: <u>Virginia Key - Water Level</u>, <u>Virginia Key - Winds</u>, <u>Virginia Key - Barometric</u>, <u>Lake Worth Pier - Water Level</u>, <u>Lake Worth Pier - Water Level</u>, <u>Trident Pier - Winds</u>, <u>Trident Pier - Barometric</u>, <u>Mayport (Bar Pilots Dock) - Water Level</u>, <u>Mayport (Bar Pilots Dock) - Winds</u>, <u>Fernandina Beach - Water Level</u>, <u>Fort Pulaski - Winds</u>, <u>Charleston - Water Level</u>, <u>Charleston - Water Level</u>, <u>Charleston - Water Level</u>, <u>Springmaid Pier - Water Level</u>,

NOAA/NOS/CO-OPS <u>8723214 Virginia Key, FL</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)

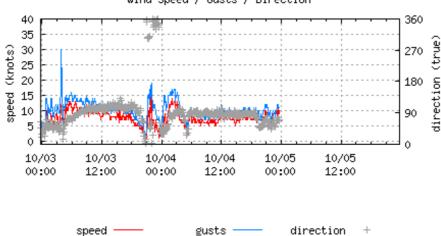


Predicted Tide (Obs-Pred) (Obs-Pred) MHHW

Last Observed Sample: 10/04/2016 23:42 (EDT). Data relative to MHHW Observed: 0.81 ft. Predicted: 0.25 ft. Residual: 0.56 ft. Historical Maximum Water Level: Oct 24 2005, 2.58 ft.

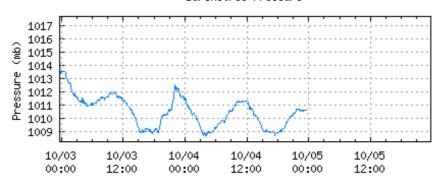
Next High Tide: 10/05/2016 00:05 (EDT), 0.27 ft.

NOAA/NOS/CO-OPS <u>8723214 Virginia Key, FL</u> Wind Speed / Gusts / Direction



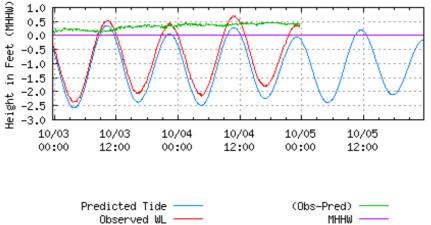
Last Observed Sample: 10/04/2016 23:42 (EDT) Wind Speed: 7 knots Gusts: 11 knots Direction: 84° T

NOAA/NOS/CO-OPS 8723214 Virginia Key, FL Barometric Pressure



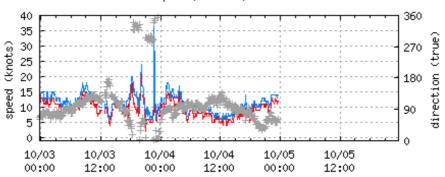
barometric pressure -Last Observed Sample: 10/04/2016 23:42 (EDT) Barometric Pressure: 1010.6 mb

NOAA/NOS/CO-OPS 8722670 Lake Worth Pier, FL Preliminary Water Level, relative to Mean Higher High Water(MHHW)



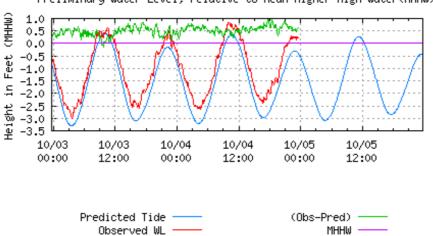
Last Observed Sample: 10/04/2016 23:36 (EDT). Data relative to MHHW Observed: 0.29 ft. Predicted: -0.10 ft. Residual: 0.39 ft. Historical Maximum Water Level: Nov 23 1984, 1.88 ft. Next High Tide: 10/05/2016 11:32 (EDT), 0.20 ft.

NOAA/NOS/CO-OPS <u>8722670 Lake Worth Pier, FL</u> Wind Speed / Gusts / Direction



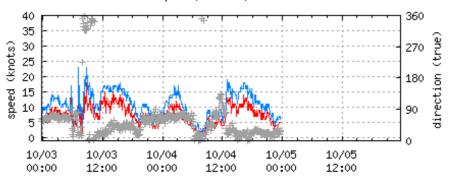
speed gusts direction + Last Observed Sample: 10/04/2016 23:36 (EDT)
Wind Speed: 9 knots Gusts: 14 knots Direction: 68° T

NOAA/NOS/CO-OPS <u>8721604 Trident Pier, FL</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



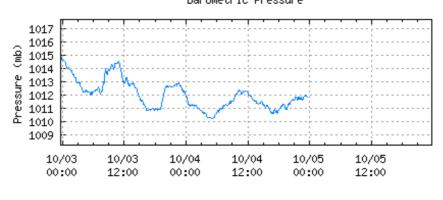
Last Observed Sample: 10/04/2016 23:36 (EDT). Data relative to MHHW Observed: 0.23 ft. Predicted: -0.42 ft. Residual: 0.65 ft. Historical Maximum Water Level: Sep 26 2004, 4.01 ft. Next High Tide: 10/05/2016 11:17 (EDT), 0.26 ft.

NOAA/NOS/CO-OPS <u>8721604 Trident Pier, FL</u> Wind Speed / Gusts / Direction



speed — gusts — direction + Last Observed Sample: 10/04/2016 23:36 (EDT) Wind Speed: 5 knots Gusts: 6 knots Direction: 28° T

NOAA/NOS/CO-OPS <u>8721604 Trident Pier, FL</u> Barometric Pressure

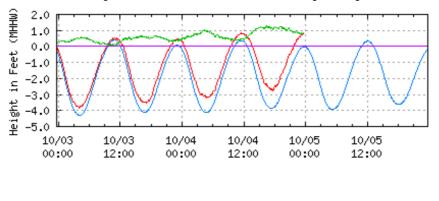


barometric pressure ----

Last Observed Sample: 10/04/2016 23:36 (EDT)

Barometric Pressure: 1011.8 mb

NOAA/NOS/CO-OPS <u>8720218 Mayport (Bar Pilots Dock)</u>, FL Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 10/04/2016 23:36 (EDT). Data relative to MHHW Observed: 0.83 ft. Predicted: -0.02 ft. Residual: 0.85 ft.

(Obs-Pred)

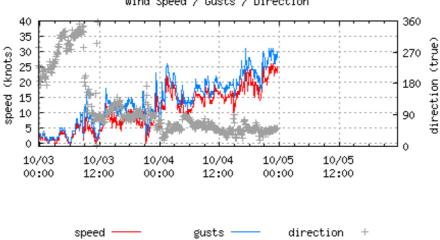
MHHW

Predicted Tide

Observed WL

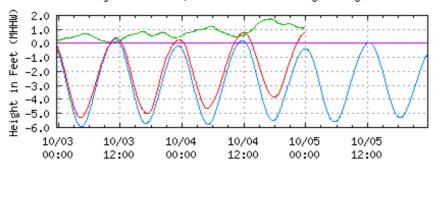
Historical Maximum Water Level: Sep 27 2004, 2.47 ft. Next High Tide: 10/04/2016 23:41 (EDT), -0.02 ft.

NOAA/NOS/CO-OPS <u>8720218 Mayport (Bar Pilots Dock)</u>, <u>FL</u> Wind Speed / Gusts / Direction



Last Observed Sample: 10/04/2016 23:36 (EDT) Wind Speed: 23 knots Gusts: 28 knots Direction: 53° T

NOAA/NOS/CO-OPS <u>8720030 Fernandina Beach, FL</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)

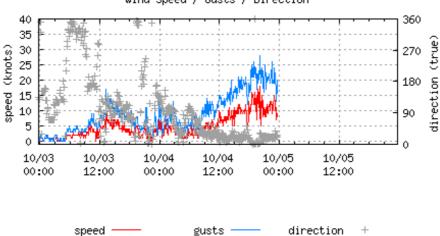


Predicted Tide (Obs-Pred) (Obs-Pred) MHHW (Obs-Pred)

Last Observed Sample: 10/04/2016 23:42 (EDT). Data relative to MHHW Observed: 0.74 ft. Predicted: -0.39 ft. Residual: 1.13 ft. Historical Maximum Water Level: Oct 2 1898, 6.94 ft.

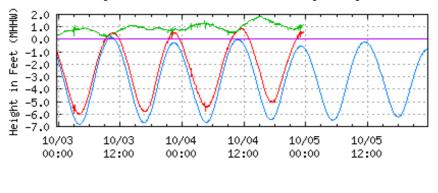
Next High Tide: 10/04/2016 23:55 (EDT), -0.37 ft.

NOAA/NOS/CO-OPS 8720030 Fernandina Beach, FL Wind Speed / Gusts / Direction



Last Observed Sample: 10/04/2016 23:42 (EDT) Wind Speed: 8 knots Gusts: 20 knots Direction: 27° T

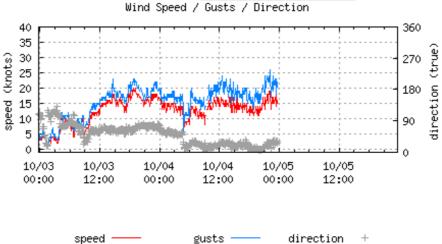
NOAA/NOS/CO-OPS <u>8670870 Fort Pulaski, GA</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide (Obs-Pred) (Obs-Pred) MHHW (

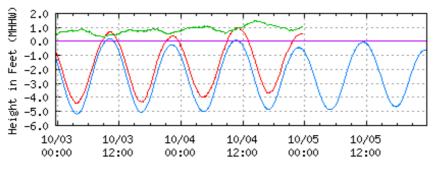
Last Observed Sample: 10/04/2016 23:36 (EDT). Data relative to MHHW Observed: 0.52 ft. Predicted: -0.63 ft. Residual: 1.15 ft. Historical Maximum Water Level: Oct 15 1947, 3.40 ft. Next High Tide: 10/05/2016 11:32 (EDT), -0.21 ft.

NOAA/NOS/CO-OPS 8670870 Fort Pulaski, GA



Last Observed Sample: 10/04/2016 23:36 (EDT) Wind Speed: 15 knots Gusts: 21 knots Direction: 32° T

NOAA/NOS/CO-OPS <u>8665530 Charleston, SC</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



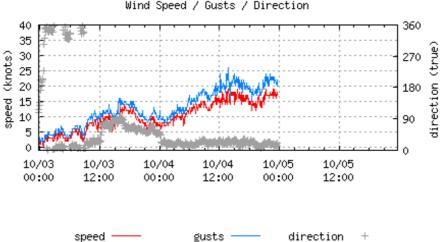
Observed WL — MHHW — Last Observed Sample: 10/04/2016 23:36 (EDT). Data relative to MHHW Observed: 0.52 ft. Predicted: -0.57 ft. Residual: 1.09 ft.

(Obs-Pred)

Predicted Tide

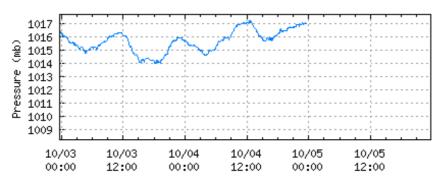
Historical Maximum Water Level: Sep 21 1989, 6.76 ft. Next High Tide: 10/05/2016 11:23 (EDT), -0.05 ft.

NOAA/NOS/CO-OPS <u>8665530 Charleston</u>, <u>SC</u> Wind Speed / Gusts / Direction



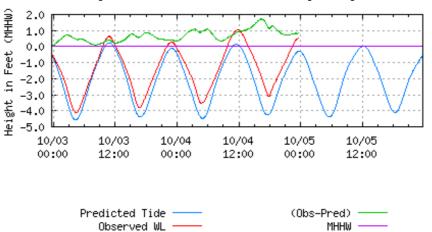
Last Observed Sample: 10/04/2016 23:36 (EDT) Wind Speed: 17 knots Gusts: 22 knots Direction: 13° T

NOAA/NOS/CO-OPS <u>8665530 Charleston</u>, <u>SC</u> Barometric Pressure



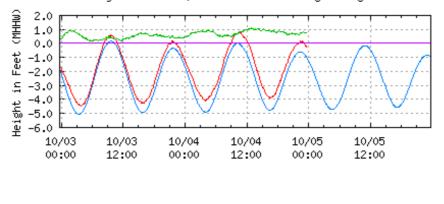
barometric pressure ——
Last Observed Sample: 10/04/2016 23:36 (EDT)
Barometric Pressure: 1017.0 mb

NOAA/NOS/CO-OPS <u>8662245 Oyster Landing (N Inlet Estuary)</u>, <u>SC</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 10/04/2016 23:30 (EDT). Data relative to MHHW Observed: 0.52 ft. Predicted: -0.31 ft. Residual: 0.83 ft. Historical Maximum Water Level: Aug 26 2011, 2.40 ft. Next High Tide: 10/04/2016 23:42 (EDT), -0.29 ft.

NOAA/NOS/CO-OPS <u>8661070 Springmaid Pier, SC</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 10/04/2016 23:36 (EDT). Data relative to MHHW Observed: -0.22 ft. Predicted: -0.99 ft. Residual: 0.77 ft.

(Obs-Pred)

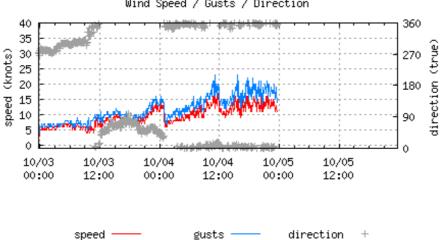
MHHW

Predicted Tide

Observed WL

Historical Maximum Water Level: Jan 1 1987, 3.65 ft. Next High Tide: 10/05/2016 10:57 (EDT), -0.16 ft.

NOAA/NOS/CO-OPS <u>8661070 Springmaid Pier, SC</u> Wind Speed / Gusts / Direction



Last Observed Sample: 10/04/2016 23:36 (EDT) Wind Speed: 11 knots Gusts: 14 knots Direction: 354° T

Latest Water Level Observations on MHHW

Station II	Station Name	Date/Time	Observed Water Level	Predicted Tide	Residual Water Level	24 Hour Maximum Storm Tide
8723214	Virginia Key, FL	10/04/2016 23:42 (EDT)	0.81 ft	0.25 ft	0.56 ft	0.93 ft
8722670	Lake Worth Pier, FL	10/04/2016 23:36 (EDT)	0.29 ft	-0.10 ft	0.39 ft	0.69 ft
8721604	Trident Pier, FL	10/04/2016 23:36 (EDT)	0.23 ft	-0.42 ft	0.65 ft	0.83 ft
8720218	Mayport (Bar Pilots Dock), FL	10/04/2016 23:36 (EDT)	0.83 ft	-0.02 ft	0.85 ft	0.83 ft
8720030	Fernandina Beach, FL	10/04/2016 23:42 (EDT)	0.74 ft	-0.39 ft	1.13 ft	0.77 ft
8670870	Fort Pulaski, GA	10/04/2016 23:36 (EDT)	0.52 ft	-0.63 ft	1.15 ft	0.83 ft
8665530	Charleston, SC	10/04/2016 23:36 (EDT)	0.52 ft	-0.57 ft	1.09 ft	1.02 ft
8662245	Oyster Landing (N Inlet Estuary), SC	10/04/2016 23:30 (EDT)	0.52 ft	-0.31 ft	0.83 ft	1.03 ft
8661070	Springmaid Pier, SC	10/04/2016 23:36 (EDT)	-0.22 ft	-0.99 ft	0.77 ft	0.78 ft

Center for Operational Oceanographic Products & Services (CO-OPS) | National Ocean Service (NOS) National Oceanic and Atmospheric Administration | U.S. Department of Commerce